

# SEQUENCE LISTING

5 <110> HEINRICHS, VOLKER  
CHEN, TEDDY  
PATTEN, PHILLIP A.

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 gaggaagttg atggccacca gttccagaag actcaagcca tctctgtcct ccatgagatg 180  
 atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctgcttg ggaacagagc 240  
 ctccatagaaa aattttccac tgaactttac cagcaactga atgacctgga agcatgtgtg 300  
 30 atacaggagg ttgggggtgga agagactccc ctgatgaatg aggactccat cctggctgtg 360  
 aagaaataact tccaaagaat cactctttat ctgatggaga agaaatacag cccttgtgcc 420  
 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
 agattaagga ggaaggaa 498

35 <210> 23  
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40 <220>  
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 45 <223> Clone ID 1F6

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 gaggaagttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180  
 atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240  
 ctccatagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300  
 atacaggagg ctgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360  
 aagaaataact tccaaagaat cactctttat ctaacagaga agaaatacag cccttgtgcc 420  
 55 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
 agattaagga ggaaggaa 498

<210> 24  
 <211> 498  
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

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<220>

<223> Clone ID 2A10

<400> 24

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 gaggtgtttg atggcaacca gttccagaag gctcaagcca tctctgcctt ccatgagatg 180  
 atccagcaga ccttcaatct ctccagcaca aaggactcat ctgctacttg ggaacagagc 240  
 ctccagaaaa aattttccac tgaactttac cagcaactga ataacctgga agcatgtgtg 300  
 15 atacaggagg ttgggggtgga agagactccc ctgatgaatg aggactccat cctggctgtg 360  
 aggaataact ttcaaagaat cactctttat ctgatggaga agaaatacag cccttgtgcc 420  
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 agattaagga ggaaggaa 498

20 <210> 25

<211> 498

<212> DNA

<213> Artificial Sequence

25 <220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 2C3

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<400> 25

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 gaggagtgtg atggcaacca gtcccagaag gctcaagcca tctctgtcct ccatgagatg 180  
 35 atccagcaga ccttcaatct ctccagcaca aaggactcat ctgatacttg ggatgcgacc 240  
 cttttagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300  
 atacaggagg ttgggggtgga agagaccccc ctgatgaatg tggactccat cctggctgtg 360  
 aagaaataact tccaaagaat cactctttat ctgacagaga agaaatacag cccttgtgcc 420  
 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
 40 agattaagga ggaaggaa 498

<210> 26

<211> 498

<212> DNA

45 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

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<220>

<223> Clone ID 2D1

<400> 26

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 55 atgggacgaa tctctccttt ctctgcctg aaggacagac aagacttttg attccccag 120  
 gaggagtgtg atggcaaccg gttccagaag gctcaagcca tctctgtcct ccatgagatg 180  
 atccagcaga ccttcaatct ctccagcaca aagaactcat ctgctgcttg ggaacagagc 240  
 ctccagaaaa aattttccac tgaactctac cagcagctga atgacctgga agcctgcgtg 300  
 atacaggagg ttgggggtgga agagaccccc ctgatgaatg aggactccat cctggctgtg 360

aagaaatact tccaaagaat cactctttat ctaatagaga ggaaatacag cccttggtgca 420  
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 agattaagga ggaaggaa 498

5 <210> 27  
 <211> 498  
 <212> DNA  
 <213> Artificial Sequence

10 <220>  
 <223> Description of Artificial Sequence: Synthetic DNA

<220>  
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15 <400> 27  
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 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgcctt ccatgagatg 180  
 20 atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240  
 ctctagaaa aattttccac tgaactttac cagcaactga ataacctgga agcctgcgtg 300  
 atacaggagg ttggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360  
 aagaaatact tccgaagaat cactctctat ctgacagaga agaaatacag cccttggtgcc 420  
 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
 25 agattaagga ggaaggaa 498

<210> 28  
 <211> 498  
 <212> DNA  
 <213> Artificial Sequence

30 <220>  
 <223> Description of Artificial Sequence: Synthetic DNA

35 <220>  
 <223> Clone ID 2D7

<400> 28  
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 40 atgggaagaa tctctccttt ctctgtctg aaggacagac atgacttcag atttccccag 120  
 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180  
 atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240  
 ctctagaaa aattttccac tgaactttac cagcaactga ataacctgga agcctgcgtg 300  
 atacaggagg ttggggtgga agagactccc ctgatgaatg tggactctat cctggctgtg 360  
 45 aagaaatact tccaaagaat cactctttat ctgacagaga ggaaatacag cccttggtgcc 420  
 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
 agattaagga ggaaggaa 498

<210> 29  
 <211> 498  
 <212> DNA  
 <213> Artificial Sequence

50 <220>  
 <223> Description of Artificial Sequence: Synthetic DNA

<220>  
 <223> Clone ID 2D9

<400> 29  
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 5 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180  
 atccagcaga ctttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240  
 ctccatagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgctgtg 300  
 atacaggagg ttgggggtgga agagactccc ctggtgaatg tggactccat cctggctgtg 360  
 aagaaatact tccaaagaat cactctttat ctgacagaga agaaatacag cccttgtgcc 420  
 10 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
 agattaagga ggaaggaa 498

<210> 30

<211> 498

<212> DNA

15 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

20 <220>

<223> Clone ID 2DA2

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 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180  
 atgcagcaga ctttcaatct cttcagcaca aagaactcat ctgctgcttg ggaacagagc 240  
 ctccatagaaa aattttccac tgaactccac cagcaactga atgaactgga agcatgtgtg 300  
 atacaggagg ttgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360  
 30 aagaaatact tccaaagaat cactctttat ctaatagaga ggaaatacag cccttgtgca 420  
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 agattaagga ggaaggaa 498

<210> 31

35 <211> 498

<212> DNA

<213> Artificial Sequence

<220>

40 <223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 2DH9

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 ggggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180  
 atgcagcaga ctttcaatct cttcagcaca aaggattcat ctgctgcttg ggaacagagc 240  
 50 ctccatagaaa aattttccac tgaactctac cggcagctga atgacctgga agcctgtgtg 300  
 atacaggagg ttgggggtgga agagaccccc ctgatgaatg tggactccat cctggctgtg 360  
 aggaagtact tccaaagaat cactctttat ctgacagaga agaagcatag cccttgttcc 420  
 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
 55 agattaagga ggaaggaa 498

<210> 32

<211> 498

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

5 <220>

<223> Clone ID 2G11

<400> 32

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atgggaagaa tctctccttt ctctgcctg aaggacagac atgactttgg acttccccag 120  
gaggagtttg atggcaacca gttccagaag actcaagcca tctctgtcct ccatgagatg 180  
atccagcaga ccttcaatct cttcagcaca aaggactcat ctgatacttg ggaacagagc 240  
ctcctagaaa aattctacat tgaacttttc cagcagctga atgacctgga agcctgctgtg 300  
atacaggagg ttgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360  
15 agaaaatact tccaaagaat cactctttat ctgacagagg agaaatacag cccttgtgcc 420  
tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
agattaagga ggaaggaa 498

<210> 33

20 <211> 498

<212> DNA

<213> Artificial Sequence

<220>

25 <223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 2G12

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gagggtgttg atggcaacca gttccagaag gctcaagcta tcttcctttt ccatgagatg 180  
atgcagcaga ccttcaatct cttcagcaca aagaactcat ctgctgcttg ggatgagacc 240  
35 ctccatagaca aattctacac tgaactctac cagcagctga atgacttgga agcctgtgtg 300  
atgcaggagg ggagggtggg agaaactccc ctgatgaatg cggactccat cttggctgtg 360  
aagaaatact tccgaagaat cactctctat ctgacagaga agaaatacag cccttgtgcc 420  
tgggaggctg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
agattaagga ggaaggaa 498

40

<210> 34

<211> 498

<212> DNA

<213> Artificial Sequence

45

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

50 <223> Clone ID 2H9

<400> 34

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atgggaagaa tctctccttt ctctgcctg aaggacagac atgactttgg attccccag 120  
55 gaggagtgtg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180  
atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240  
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacctaga agcctgtgtg 300  
acacaggagg ttgggggtgga agagactccc ctgatgaatg aggactctat cctggctgtg 360  
aagaaatact tccaaagaat cactctttat ctgacagaga agaaatacag cccttgtgcc 420

tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
agattaagga ggaaggaa 498

<210> 35  
<211> 498  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic DNA

<220>  
<223> Clone ID 6BC11

<400> 35  
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atgggaagaa tctctccttt ctctgcctg aaggacagat atgatttcgg attccccag 120  
gaggagtttg atggcaacca gctccagaag gctcaagcca tctctgtcct ccatgagatg 180  
atccagcaga ccttcaatct cttcagcaca aaggattcat ctgctgcttg ggaacagagc 240  
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300  
atacaggagg ttggagtggg agagactccc ctgatgaatg tggactccat cctggctgtg 360  
aagaaatact tccaaagaat cactctttat ctgacagaga ggaaatacag cccttgtgcc 420  
tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
agattaagga ggaaggaa 498

<210> 36  
<211> 166  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic amino acid

<220>  
<223> Clone ID 2DH12

<400> 36  
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1 5 10 15  
Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30  
Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45  
Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60  
Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Thr  
65 70 75 80  
Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
85 90 95  
Glu Ala Cys Val Ile Gln Glu Val Gly Val Lys Glu Thr Pro Leu Met  
100 105 110  
Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr

115

120

125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
 130 135 140

5

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
 145 150 155 160

10

Arg Leu Arg Arg Lys Glu  
 165

&lt;210&gt; 37

&lt;211&gt; 166

15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Synthetic amino acid

20

&lt;220&gt;

&lt;223&gt; Clone ID 2CA3

&lt;400&gt; 37

25

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asp Arg Arg Ala Met Ile  
 1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
 20 25 30

30

Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
 35 40 45

35

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser  
 65 70 75 80

40

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu  
 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Gly Glu Thr Pro Leu Met  
 100 105 110

45

Asn Gly Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
 115 120 125

50

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
 145 150 155 160

55

Arg Leu Arg Arg Lys Glu  
 165

&lt;210&gt; 38

<211> 166  
<212> PRT  
<213> Artificial Sequence

5 <220>  
<223> Description of Artificial Sequence: Synthetic amino acid

<220>  
<223> Clone ID 4AB9

10 <400> 38  
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
1 5 10 15

15 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

Arg His Asp Phe Gly Phe Pro Arg Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

20 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr  
50 55 60

25 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr  
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu  
85 90 95

30 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

35 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val  
130 135 140

40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

45 <210> 39  
<211> 166  
<212> PRT  
<213> Artificial Sequence

50 <220>  
<223> Description of Artificial Sequence: Synthetic amino acid

<220>  
<223> Clone ID 2DA4

55 <400> 39  
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Met  
1 5 10 15



Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
                     20                    25                    30

5 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Ser Asn Gln Phe  
                     35                    40                    45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr  
                     50                    55                    60

10 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr  
                     65                    70                    75                    80

15 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
                     85                    90                    95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
                     100                    105                    110

20 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
                     115                    120                    125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
                     130                    135                    140

25 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
                     145                    150                    155                    160

30 Arg Leu Arg Arg Lys Glu  
                     165

<210> 40  
 <211> 166  
 35 <212> PRT  
     <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic amino acid

40 <220>  
     <223> Clone ID 3DA11

<400> 40  
 45 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Val  
                     1                    5                    10                    15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
                     20                    25                    30

50 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
                     35                    40                    45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
                     50                    55                    60

55 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr  
                     65                    70                    75                    80

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Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
                             85                            90                            95  
 5 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
                             100                            105                            110  
 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
                             115                            120                            125  
 10 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
                             130                            135                            140  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
                             145                            150                            155                            160  
 15 Arg Leu Arg Arg Lys Glu  
                             165  
 20 <210> 41  
     <211> 166  
     <212> PRT  
     <213> Artificial Sequence  
 25 <220>  
     <223> Description of Artificial Sequence: Synthetic amino acid  
     <220>  
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 30 <400> 41  
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         1                            5                            10                            15  
 35 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
                             20                            25                            30  
 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
                             35                            40                            45  
 40 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
                             50                            55                            60  
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr  
                             65                            70                            75                            80  
 45 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
                             85                            90                            95  
 50 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
                             100                            105                            110  
 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
                             115                            120                            125  
 55 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
                             130                            135                            140  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
                             140

145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

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<210> 42

<211> 166

<212> PRT

10 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

15 <220>

<223> Clone ID 2CA5

<400> 42

20 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

25 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Arg Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

30 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Glu Gln Ser  
65 70 75 80

35 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

40 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

45 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

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<210> 43

<211> 166

<212> PRT

55 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 2G6

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Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

15

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser  
65 70 75 80

20

Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu  
85 90 95

25

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

Asn Val Asp Pro Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

30

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

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Arg Leu Arg Arg Lys Glu  
165

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<210> 44

<211> 166

<212> PRT

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 3AH7

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<400> 44

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
1 5 10 15

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Leu Leu Ala Gln Met Arg Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Ser Asn Gln Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

5 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser  
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Glu Leu  
85 90 95

10 Glu Ala Cys Val Val Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

15 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Leu Gln Arg Ile Thr  
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

20 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

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<210> 45  
<211> 166  
<212> PRT  
30 <213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic amino acid

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<223> Clone ID 2G5

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1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

45 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

50 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser  
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
55 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
 115 120 125  
 5 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
 130 135 140  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
 145 150 155 160  
 10 Arg Leu Arg Arg Lys Glu  
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 15 <210> 46  
 <211> 166  
 <212> PRT  
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 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
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 30 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
 20 25 30  
 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
 35 35 40 45  
 35 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
 50 55 60  
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser  
 40 65 70 75 80  
 40 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
 85 90 95  
 45 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
 100 105 110  
 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
 115 120 125  
 50 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
 130 135 140  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
 145 150 155 160  
 55 Arg Leu Arg Arg Lys Glu  
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<210> 47  
<211> 166  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Synthetic amino acid

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<220>  
<223> Clone ID 1F3

<400> 47  
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
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15

Leu Leu Gly Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp  
20 25 30

20

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

25

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Val Ala Trp Asp Glu Arg  
65 70 75 80

Leu Leu Asp Lys Leu Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
85 90 95

30

Glu Ala Cys Val Met Gln Glu Val Trp Val Gly Gly Thr Pro Leu Met  
100 105 110

35

Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

40

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

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<210> 48  
<211> 166  
<212> PRT  
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<220>  
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<220>  
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<400> 48  
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile

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	1	5	10	15
	Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp	20	25	30
5	Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe	35	40	45
10	Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Ile Met Gln Gln Thr	50	55	60
	Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr	65	70	75
15	Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu	85	90	95
	Glu Ala Cys Val Ile Gln Gly Val Gly Val Glu Glu Thr Pro Leu Met	100	105	110
20	Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr	115	120	125
25	Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val	130	135	140
	Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys	145	150	155
30	Arg Leu Arg Arg Lys Glu	165		
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50	Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp	20	25	30
	Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe	35	40	45
55	Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr	50	55	60
	Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser	65	70	75



Leu Leu Glu Lys Phe Ser Thr Gly Leu Tyr Gln Gln Leu Asn Asp Leu  
                                     85                                    90                                    95  
 5 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
                                     100                                    105                                    110  
 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
                                     115                                    120                                    125  
 10 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val  
                                     130                                    135                                    140  
 15 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
                                     145                                    150                                    155                                    160  
 Arg Leu Arg Arg Lys Glu  
                                     165  
 20 <210> 50  
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     <212> PRT  
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 25 <220>  
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 30 <223> Clone ID 3CA1  
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 35 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
                                     20                                    25                                    30  
 40 Arg His Asp Phe Gly Leu Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
                                     35                                    40                                    45  
 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
                                     50                                    55                                    60  
 45 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr  
                                     65                                    70                                    75                                    80  
 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu  
                                     85                                    90                                    95  
 50 Glu Ala Cys Val Ile Gln Glu Val Gly Met Glu Glu Thr Pro Leu Met  
                                     100                                    105                                    110  
 55 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
                                     115                                    120                                    125  
 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
                                     130                                    135                                    140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

<210> 51  
<211> 166  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Synthetic amino acid

<220>  
<223> Clone ID 2F8

<400> 51  
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr  
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr  
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu  
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val  
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

<210> 52  
<211> 166  
<212> PRT  
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<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 6CG3

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<400> 52

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Lys Arg Ala Met Met  
1 5 10 15

10 Leu Leu Ala Gln Met Gly Arg Thr Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

15

Gln Arg Ala Gln Ala Ile Phe Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

20

Phe Asn Phe Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser  
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu  
85 90 95

25

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

30

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

35

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

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<210> 53

<211> 166

<212> PRT

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic amino acid

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<223> Clone ID 3CG7

<400> 53

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Ser Arg Ala Leu Met  
1 5 10 15

55

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe

45

5

10

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25

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<223> Clone ID 1D3

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55

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

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Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
 115 120 125  
 5 Leu Tyr Leu Met Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
 130 135 140  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
 145 150 155 160  
 10 Arg Leu Arg Arg Lys Glu  
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 15 <210> 55  
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 <223> Description of Artificial Sequence: Synthetic amino acid  
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 <223> Clone ID 2G4  
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 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Met Met  
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 30 Leu Leu Ala Gln Met Ser Arg Ile Ser Pro Ser Ser Cys Leu Met Asp  
 20 25 30  
 Arg His Asp Phe Glu Phe Pro Gln Glu Glu Phe Asp Asp Lys Gln Phe  
 35 35 40 45  
 Gln Lys Ala Pro Ala Ile Ser Val Leu His Glu Val Ile Gln Gln Thr  
 50 55 60  
 40 Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Ala Trp Glu Gln Thr  
 65 70 75 80  
 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
 85 90 95  
 45 Glu Ala Cys Val Met Gln Glu Glu Arg Val Gly Glu Thr Pro Leu Met  
 100 105 110  
 Asn Ala Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
 115 120 125  
 50 Leu Tyr Leu Thr Lys Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val  
 130 135 140  
 55 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
 145 150 155 160  
 Arg Leu Arg Arg Lys Glu  
 165

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<210> 56

<211> 166

<212> PRT

5 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

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<223> Clone ID 1A1

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15 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp  
20 25 30

20 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Val Phe Asp Gly Asn Gln Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Met Gln Gln Thr  
50 55 60

25 Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Ala Trp Glu Gln Ser  
65 70 75 80

30 Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Asp Leu  
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

35 Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

Leu Tyr Leu Met Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

45 Arg Leu Arg Arg Lys Glu  
165

<210> 57

<211> 166

50 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

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<220>

<223> Clone ID 1D10

<400> 57

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Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
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 5 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
 20 25 30  
 Arg His Asp Phe Arg Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Leu  
 35 40 45  
 10 Gln Lys Thr Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
 50 55 60  
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser  
 65 70 75 80  
 15 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu  
 85 90 95  
 20 Glu Ala Cys Val Ile Gln Gly Val Gly Val Glu Glu Thr Pro Pro Met  
 100 105 110  
 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
 115 120 125  
 25 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
 130 135 140  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
 145 150 155 160  
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 35 <210> 58  
 <211> 166  
 <212> PRT  
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 50 Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
 20 25 30  
 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
 35 40 45  
 55 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
 50 55 60  
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser  
 153

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	Leu	Leu	Glu	Lys	Phe	Ser	Thr	Glu	Leu	Asn	Gln	Gln	Leu	Asn	Asp	Leu
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5	Glu	Ala	Cys	Val	Ile	Gln	Glu	Ala	Gly	Val	Glu	Glu	Thr	Pro	Leu	Met
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10	Asn	Val	Asp	Ser	Ile	Leu	Ala	Val	Lys	Lys	Tyr	Phe	Gln	Arg	Ile	Thr
			115					120					125			
	Leu	Tyr	Leu	Thr	Glu	Lys	Lys	Tyr	Ser	Pro	Cys	Ala	Trp	Glu	Val	Val
		130					135					140				
15	Arg	Ala	Glu	Ile	Met	Arg	Ser	Phe	Ser	Phe	Ser	Thr	Asn	Leu	Gln	Lys
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	Arg	Leu	Arg	Arg	Lys	Glu										
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	1				5					10					15	
	Leu	Leu	Ala	Gln	Met	Gly	Arg	Ile	Ser	His	Phe	Ser	Cys	Leu	Lys	Asp
				20					25					30		
40	Arg	Tyr	Asp	Phe	Gly	Phe	Pro	Gln	Glu	Val	Phe	Asp	Gly	Asn	Gln	Phe
			35					40					45			
	Gln	Lys	Ala	Gln	Ala	Ile	Ser	Ala	Phe	His	Glu	Met	Ile	Gln	Gln	Thr
		50					55					60				
45	Phe	Asn	Leu	Phe	Ser	Thr	Lys	Asp	Ser	Ser	Ala	Thr	Trp	Glu	Gln	Ser
	65					70					75					80
	Leu	Leu	Glu	Lys	Phe	Ser	Thr	Glu	Leu	Tyr	Gln	Gln	Leu	Asn	Asn	Leu
					85					90					95	
50	Glu	Ala	Cys	Val	Ile	Gln	Glu	Val	Gly	Val	Glu	Glu	Thr	Pro	Leu	Met
				100					105					110		
55	Asn	Glu	Asp	Ser	Ile	Leu	Ala	Val	Arg	Lys	Tyr	Phe	Gln	Arg	Ile	Thr
		115						120					125			
	Leu	Tyr	Leu	Met	Glu	Lys	Lys	Tyr	Ser	Pro	Cys	Ala	Trp	Glu	Val	Val
		130					135					140				



Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

5 Arg Leu Arg Arg Lys Glu  
165

10	<210>	60
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	<212>	PRT
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15     <223> Description of Artificial Sequence: Synthetic amino acid

<220>  
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Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
25                      20                      25                      30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Ser  
35 40 45

30    Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
               50                        55                    60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Asp Thr Trp Asp Ala Thr  
65 70 75 80

35      Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu  
                      85                     90                     95

40      Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
                        100                        105                        110

Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

45    Leu Tyr Leu Thr Glu Lys    Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
               130                          135                          140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

50 Arg Leu Arg Arg Lys Glu  
165

55    <210> 61  
       <211> 166  
       <212> PRT  
       <213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic amino acid

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5 <223> Clone ID 2D1

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Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
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10

Leu Leu Ala Gln Met Arg Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

15

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr  
50 55 60

20

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser  
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu  
85 90 95

25

Glu Ala Cys Val Ile Gln Glu Val Gly Met Glu Glu Thr Pro Leu Met  
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

30

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

35

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

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<210> 62

<211> 166

<212> PRT

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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

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<220>

<223> Clone ID 2D10

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Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
1 5 10 15

55

Leu Leu Ala Gln Met Gly Arg Val Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
                   35                                  40                                  45  
 5 Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr  
                   50                                  55                                  60  
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser  
                   65                                  70                                  75                                  80  
 10 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu  
                                   85                                  90                                  95  
 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
                                   100                                  105                                  110  
 15 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr  
                                   115                                  120                                  125  
 20 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
                   130                                  135                                  140  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
                   145                                  150                                  155                                  160  
 25 Arg Leu Arg Arg Lys Glu  
                                   165  
 30 <210> 63  
     <211> 166  
     <212> PRT  
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 35 <220>  
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 40 <400> 63  
     Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
         1                                  5                                  10                                  15  
 45 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
                                   20                                  25                                  30  
 Arg His Asp Phe Arg Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
                   35                                  40                                  45  
 50 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
                   50                                  55                                  60  
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser  
                   65                                  70                                  75                                  80  
 55 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu  
                                   85                                  90                                  95  
 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met

	100	105	110
5	Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr 115 120 125		
	Leu Tyr Leu Thr Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val 130 135 140		
10	Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys 145 150 155 160		
	Arg Leu Arg Arg Lys Glu 165		
15	<210> 64 <211> 166 <212> PRT <213> Artificial Sequence		
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30	<400> 64 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile 1 5 10 15		
	Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp 20 25 30		
35	Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe 35 40 45		
	Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr 50 55 60		
40	Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser 65 70 75 80		
	Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu 85 90 95		
45	Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Val 100 105 110		
50	Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr 115 120 125		
	Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val 130 135 140		
55	Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys 145 150 155 160		
	Arg Leu Arg Arg Lys Glu 165		

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 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
                     20                    25                    30  
 20 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
                     35                    40                    45  
 25 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr  
                     50                    55                    60  
 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Glu Gln Ser  
     65                    70                    75                    80  
 30 Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Glu Leu  
                     85                    90                    95  
 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
                     100                    105                    110  
 35 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
                     115                    120                    125  
 40 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
     130                    135                    140  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
     145                    150                    155                    160  
 45 Arg Leu Arg Arg Lys Glu  
                     165  
  
 50 <210> 66  
 <211> 166  
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 55 <220>  
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 <223> Clone ID 2DH9

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Cys Asp Leu Pro Gln Thr His Ser Pro Gly Asn Arg Arg Ala Leu Met  
 1 5 10 15

5 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
 20 25 30

Arg Tyr Asp Phe Gly Phe Pro Gln Gly Glu Phe Asp Gly Asn Gln Phe  
 35 40 45

10 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr  
 50 55 60

15 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser  
 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Arg Gln Leu Asn Asp Leu  
 85 90 95

20 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
 100 105 110

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
 115 120 125

25 Leu Tyr Leu Thr Glu Lys Lys His Ser Pro Cys Ser Trp Glu Val Val  
 130 135 140

30 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
 145 150 155 160

Arg Leu Arg Arg Lys Glu  
 165

35

&lt;210&gt; 67

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

40

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Synthetic amino acid

&lt;220&gt;

&lt;223&gt; Clone ID 2G11

45

&lt;400&gt; 67

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
 1 5 10 15

50

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
 20 25 30

55 Arg His Asp Phe Gly Leu Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
 35 40 45

Gln Lys Thr Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
 50 55 60

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Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Asp Thr Trp Glu Gln Ser  
65 70 75 80

5 Leu Leu Glu Lys Phe Tyr Ile Glu Leu Phe Gln Gln Leu Asn Asp Leu  
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

10 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

Leu Tyr Leu Thr Glu Glu Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

15 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

20 Arg Leu Arg Arg Lys Glu  
165

<210> 68  
<211> 166  
25 <212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic amino acid  
30 <220>  
<223> Clone ID 2G12

<400> 68  
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1 5 10 15

Leu Met Ala Gln Met Arg Arg Ile Ser Pro Phe Pro Arg Leu Lys Asp  
20 25 30

40 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Val Phe Asp Gly Asn Gln Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Phe Leu Phe His Glu Met Met Gln Gln Thr  
45 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr  
65 70 75 80

50 Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
85 90 95

Glu Ala Cys Val Met Gln Glu Gly Arg Val Gly Glu Thr Pro Leu Met  
100 105 110

55 Asn Ala Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr  
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Ala Val

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130              135              140
Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145              150              155              160
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Arg Leu Arg Arg Lys Glu
165

10 <210> 69
    <211> 166
    <212> PRT
    <213> Artificial Sequence

15 <220>
    <223> Description of Artificial Sequence: Synthetic amino acid

    <220>
    <223> Clone ID 2H9

20 <400> 69
    Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
      1              5              10              15
25 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
      20              25              30
    Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
      35              40              45
30 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
      50              55              60
    Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
      65              70              75              80
35 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
      85              90              95
40 Glu Ala Cys Val Thr Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
      100              105              110
    Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
      115              120              125
45 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
      130              135              140
    Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
      145              150              155              160
50 Arg Leu Arg Arg Lys Glu
      165

55 <210> 70
    <211> 166
    <212> PRT
    <213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic amino acid

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<220>

<223> Clone ID 6BC11

<400> 70

10 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

15 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Leu  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

20 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser  
65 70 75 80

25 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu  
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

30 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
115 120 125

Leu Tyr Leu Thr Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

35 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

40 Arg Leu Arg Arg Lys Glu  
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<210> 71

<211> 166

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<212> PRT

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<223> Description of Artificial Sequence: Synthetic amino acid

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<223> Clone ID t19bb

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55 <221> MOD\_RES

<222> (11)

<223> N or D

<220>

<221> MOD\_RES  
 <222> (12)  
 <223> R, S, or K

5 <220>  
 <221> MOD\_RES  
 <222> (15)  
 <223> L or M

10 <220>  
 <221> MOD\_RES  
 <222> (16)  
 <223> I, M or V

15 <220>  
 <221> MOD\_RES  
 <222> (19)  
 <223> A or G

20 <220>  
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 <222> (22)  
 <223> G or R

25 <220>  
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 <222> (24)  
 <223> I or T

30 <220>  
 <221> MOD\_RES  
 <222> (26)  
 <223> P or H

35 <220>  
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 <222> (34)  
 <223> H, Y or Q

40 <220>  
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 <222> (38)  
 <223> F or L

45 <220>  
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 <222> (40)  
 <223> Q or R

50 <220>  
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 <222> (45)  
 <223> G or S

55 <220>  
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 <222> (46)  
 <223> N or H

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50  
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<220>  
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<222> (47)  
<223> Q or R

<220>  
<221> MOD\_RES  
<222> (50)  
<223> K or R

<220>  
<221> MOD\_RES  
<222> (51)  
<223> A or T

<220>  
<221> MOD\_RES  
<222> (55)  
<223> S or F

<220>  
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<222> (56)  
<223> V or A

<220>  
<221> MOD\_RES  
<222> (57)  
<223> L or F

<220>  
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<222> (60)  
<223> M or I

<220>  
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<222> (61)  
<223> I or M

<220>  
<221> MOD\_RES  
<222> (67)  
<223> L or F

<220>  
<221> MOD\_RES  
<222> (72)  
<223> D or N

<220>  
<221> MOD\_RES  
<222> (75)  
<223> A or V

<220>  
<221> MOD\_RES  
<222> (76)  
<223> A or T

5      <220>  
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         <222> (78)  
         <223> E or D

10      <220>  
         <221> MOD\_RES  
         <222> (79)  
         <223> Q or E

15      <220>  
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         <222> (80)  
         <223> S, R, T, or N

20      <220>  
         <221> MOD\_RES  
         <222> (83)  
         <223> E or D

25      <220>  
         <221> MOD\_RES  
         <222> (85)  
         <223> F or L

30      <220>  
         <221> MOD\_RES  
         <222> (86)  
         <223> S or Y

35      <220>  
         <221> MOD\_RES  
         <222> (88)  
         <223> E or G

40      <220>  
         <221> MOD\_RES  
         <222> (90)  
         <223> Y, H, N

45      <220>  
         <221> MOD\_RES  
         <222> (95)  
         <223> D, E, or N

50      <220>  
         <221> MOD\_RES  
         <222> (101)  
         <223> I, M, or V

55      <220>  
         <221> MOD\_RES  
         <222> (103)  
         <223> E or G

         <220>  
         <221> MOD\_RES  
         <222> (105)

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5

 $\langle 222 \rangle \quad (10\bar{6})$  $\langle 220 \rangle$ 

10

$\langle 222 \rangle$  (107)

 $\langle 220 \rangle$ 

15

$\langle 222 \rangle$  (108)

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 $\langle 222 \rangle$  (114)

<220>

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<221> MOD_RES
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$\langle 222 \rangle$  (116)

<223> S or P

<220>

<221> MOD\_RES

 $\langle 222 \rangle$  (121)

<223> K or R

<220>

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<221> MOD RES
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$\langle 222 \rangle$  (124)

<223> F or L

<220>

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<221> MOD RES
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$\langle 222 \rangle$  (132)

<223> T, I, or M

<220>

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 $\langle 222 \rangle$  (134)

<223> K or R

 $\langle 220 \rangle$ 

<221> MOD\_RES

 $\langle 222 \rangle$      $(140)$ 

<223> A or S

<400> 71

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Xaa Xaa Arg Ala Xaa Xaa

1	5	10	15
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Leu Leu Xaa Gln Met Xaa Arg Xaa Ser Xaa Phe Ser Cys Leu Lys Asp

20 25 30



<223> Clone ID CH1.2

<400> 73

5 tgtgatctgc ctcagaccca cagccttggt aacaggaggg ccttgatact cctggcacia 60  
atgggaagaa tctctccttt ctctgcctg aaggacagac atgactttgg attccccag 120  
gaggagtttg atggcaacca gttccagaag gctcaaggca tctctgtcct ccatgagatg 180  
atccagcaga ccttccatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240  
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300  
10 atacaggagg ttggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360  
aagaaatact tccgaagaat cactctttat ctgacagaga agaaatacag cccttgtgcc 420  
tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
agattaagga ggaaggaa 498

<210> 74

15 <211> 498

<212> DNA

<213> Artificial Sequence

<220>

20 <223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID CH1.3

25 <400> 74

30 tgtgatctgc ctcagaccca cagccttggt aacaggagga ctttgatgat aatggcacia 60  
atgggaagaa tctctccttt ctctgcctg aaggacagac atgactttgg atttctcag 120  
gaggagtttg atggcaacca gttccagaag gctcaaggca tctctgtcct ccatgagatg 180  
atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggatgagaca 240  
cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgtatg 300  
atgcaggagg ttggagtggga agacactcct ctgatgaatg tggactctat cctgactgtg 360  
agaaaatact ttccaagaat cactctttat ctgacagaga agaaatacag cccttgtgcc 420  
tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
35 agattaagga ggaaggaa 498

<210> 75

<211> 498

<212> DNA

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic DNA

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45 <223> Clone ID CH1.4

<400> 75

50 tgtgatctgc ctcagaccca cagcctgggt aataggaggg ccttgatact cctggcacia 60  
atgggaagaa tctctccttt ctctgcctg aaggacagac atgactttgg attccccag 120  
gaggagtttg gtggcaacca gttccagaag gctcaaggca tctctgtcct ccatgagatg 180  
atccagcaga ccttcaatct cttcagcaca gaggactcat ctgctgcttg ggatgagacc 240  
ctcctagaca aattctacat tgaacttttc cagcaactga atgacctgga agcctgtgtg 300  
atgcaggagg agagggtggg agaaactccc ctgatgaatg cggactccat cttggctgtg 360  
55 aagaaatact tccaaagaat cactctttat ctgacagaga agaaatacag cccttgtgcc 420  
tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480  
agattaagga ggaaggaa 498

<210> 76

<211> 498

<212> DNA  
<213> Artificial Sequence

<220>

5 <223> Description of Artificial Sequence: Synthetic DNA

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<223> Clone ID CH2.1

10 <400> 76

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atgggaagaa tctctccttt ctccctgcctg aaggacagac atgacttttg atttcctcag 120
gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ctttcaatct cttcagcaca aaggactcat ctgctacttg ggatgagaca 240
15 cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgtatg 300
atacaggagg ttgggggtgga agagactccc ctgatgaatg aggactccat cttggctgtg 360
aagaaatact tccgaagaat cactctctat ctgacagaga agaaatacag cccttgtgcc 420
tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498
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<210> 77

<211> 498

<212> DNA

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

30 <223> Clone ID CH2.2

<400> 77

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atgggaagaa tctctccttt ctccctgtctg atggacagac atgacttttg atttccccag 120
35 gaggagtttg atgacaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccaacaga ctttcaatct cttcagcaca aaggactcat ctgctacttg ggatgagaca 240
cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgtatg 300
atgcaggagg ttggagtgga agacactcct ctgatgaatg tggactctat cctgactgtg 360
aagaaatact tccgaagaat cactctttat ctgacagaga agaaatacag cccttgtgcc 420
40 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498
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<210> 78

<211> 498

45 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

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<220>

<223> Clone ID CH2.3

<400> 78

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atgggaagaa tctctccttt ctccctgcctg aaggacagac atgacttttg atttcctcag 120
gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ctttcaatct cttcagcaca aaggactcat ctgctacttg ggatgagaca 240
55 cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgtatg 300
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&lt;220&gt;

&lt;223&gt; Clone ID CH1.2

&lt;400&gt; 80

5 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile  
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

10 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

15 Gln Lys Ala Gln Gly Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

Phe His Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser  
65 70 75 80

20 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu  
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

25 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr  
115 120 125

30 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

35 Arg Leu Arg Arg Lys Glu  
165

&lt;210&gt; 81

40 &lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

45 &lt;223&gt; Description of Artificial Sequence: Synthetic amino acid

&lt;220&gt;

&lt;223&gt; Clone ID CH1.3

&lt;400&gt; 81

50 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met  
1 5 10 15

Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

55 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
35 40 45

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Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

5 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr  
65 70 75 80

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
85 90 95

10 Glu Ala Cys Met Met Gln Glu Val Gly Val Glu Asp Thr Pro Leu Met  
100 105 110

Asn Val Asp Ser Ile Leu Thr Val Arg Lys Tyr Phe Arg Arg Ile Thr  
115 120 125

15 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

20 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

25 <210> 82  
<211> 166  
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30 <220>  
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35 <220>  
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40 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
20 25 30

45 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Gly Gly Asn Gln Phe  
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

50 Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Ala Trp Asp Glu Thr  
65 70 75 80

Leu Leu Asp Lys Phe Tyr Ile Glu Leu Phe Gln Gln Leu Asn Asp Leu  
85 90 95

55 Glu Ala Cys Val Met Gln Glu Glu Arg Val Gly Glu Thr Pro Leu Met  
100 105 110

Asn Ala Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr  
173

115                      120                      125  
 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
     130                      135                      140  
 5  
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
     145                      150                      155                      160  
 10 Arg Leu Arg Arg Lys Glu  
                     165  
  
 <210> 83  
 <211> 166  
 15 <212> PRT  
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 25 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met  
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 Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp  
                     20                      25                      30  
 30 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe  
                     35                      40                      45  
  
 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
     50                      55                      60  
 35 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr  
     65                      70                      75                      80  
  
 40 Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
                     85                      90                      95  
  
 Glu Ala Cys Met Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
                     100                      105                      110  
 45 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr  
     115                      120                      125  
  
 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
     130                      135                      140  
 50 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
     145                      150                      155                      160  
  
 55 Arg Leu Arg Arg Lys Glu  
                     165

<210> 84

<211> 166  
<212> PRT  
<213> Artificial Sequence

5 <220>  
<223> Description of Artificial Sequence: Synthetic amino acid

<220>  
<223> Clone ID CH2.2

10 <400> 84  
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1 5 10 15

15 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Met Asp  
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Asp Asn Gln Phe  
35 40 45

20 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr  
50 55 60

25 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr  
65 70 75 80

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu  
85 90 95

30 Glu Ala Cys Met Met Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met  
100 105 110

Asn Val Asp Ser Ile Leu Thr Val Lys Lys Tyr Phe Arg Arg Ile Thr  
115 120 125

35 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val  
130 135 140

40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys  
145 150 155 160

Arg Leu Arg Arg Lys Glu  
165

45 <210> 85  
<211> 166  
<212> PRT  
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50 <220>  
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<220>  
<223> Clone ID CH2.3

55 <400> 85  
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met  
1 5 10 15

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				20					25					30			
5	Arg	His	Asp	Phe	Gly	Phe	Pro	Gln	Glu	Glu	Phe	Asp	Gly	Asn	Gln	Phe	
			35					40					45				
	Gln	Lys	Ala	Gln	Ala	Ile	Ser	Val	Leu	His	Glu	Met	Ile	Gln	Gln	Thr	
		50					55					60					
10	Phe	Asn	Leu	Phe	Ser	Thr	Lys	Asp	Ser	Ser	Ala	Thr	Trp	Asp	Glu	Thr	
	65					70					75					80	
	Leu	Leu	Asp	Lys	Phe	Tyr	Thr	Glu	Leu	Tyr	Gln	Gln	Leu	Asn	Asp	Leu	
15				85						90				95			
	Glu	Ala	Cys	Met	Met	Gln	Glu	Val	Gly	Val	Glu	Glu	Thr	Pro	Leu	Met	
				100					105					110			
20	Asn	Glu	Asp	Ser	Ile	Leu	Ala	Val	Lys	Lys	Tyr	Phe	Arg	Arg	Ile	Thr	
			115					120					125				
	Leu	Tyr	Leu	Thr	Glu	Lys	Lys	Tyr	Ser	Pro	Cys	Ala	Trp	Glu	Val	Val	
	130					135						140					
25	Arg	Ala	Glu	Ile	Met	Arg	Ser	Phe	Ser	Phe	Ser	Thr	Asn	Leu	Gln	Lys	
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<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Synthetic amino acid

<400> 88

10 Trp Glu Leu Val Arg Ala Glu Ile Val Arg Ser Phe Ser Phe Ser Thr  
1 5 10 15

Asn Leu Asn Lys Arg Leu Arg Lys Lys Glu  
20 25

15

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